

### REMARKS

Applicant respectfully requests reconsideration. Claims 1-11 were previously examined. By this amendment, Applicant adds claims 12-17. As a result, claims 1-17 remain pending for examination, of which claims 1, 2, 3, 6, 7 and 8 are independent.

Applicant notes with appreciation the allowance of claims 2, 6 and 8-11.

Claims 1, 3-5 and 7 stand rejected under 35 U.S.C. §101 “because they are disembodied and merely algorithmic in their nature where these method claims could be implemented through mental steps and/or constructed in paper with pencil, and are not limited to be performed by a computer or a machine.” (Office Action, Page 4, Section 9). Applicant respectfully traverses this rejection.

Applicant notes that there have been recent changes in United States Patent and Trademark Office (PTO) rules and procedures in assessing patent eligible subject matter under §101 since the issuance of the Office Action. The PTO’s rules and procedures for determining whether a claim recites patent-eligible subject matter under § 101 are now more consistent with the law, particularly judicial law.

The Court of Appeals Federal Circuit (CAFC) has held that an invention is patent-eligible subject matter if it produces a “useful, concrete, tangible result.” (*State Street Bank and Trust v. Signature Financial Group*, (Fed. Cir. 1998). Until recently, the United States Patent and Trademark Office (PTO) was imposing an additional “technological arts” test in determining whether a claim was eligible for patenting.

In a recent decision, *Ex Parte Lundgren*, Appeal No. 2003-2008, the Board of Patent Appeals and Interferences (BPAI) considered whether a patent claim was eligible subject matter under §101. The Examiner had argued that “both the invention and the practical application to which it is directed to be outside the technological arts, namely an economic theory expressed as a mathematical algorithm without the disclosure or suggestion of computer, automated means, apparatus of any kind, the invention as claimed is found non-statutory.” *Lundgren*, page 4. The BPAI unambiguously rejected this argument, holding that “there is currently no judicially recognized separate ‘technological arts’ test to determine patent eligible subject matter under § 101. We decline to propose to create one. Therefore, it is apparent that the examiner’s rejection can not be sustained.” *Lundgren*, page 9.

Shortly after this holding, the PTO issued Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility. Annex III of the Interim Guidelines, titled Improper Tests For Subject Matter Eligibility, explicitly indicates that the “(C) mental step or human step tests” and the “(D) machine implemented test” are “**not** to be applied by examiners in determining whether the claimed invention is patent eligible subject matter” (Page 42; emphasis in original). More specifically, “It is immaterial whether the process may be performed by some or all steps that are carried out by a human.” (Guidelines, Page 47). “Whether a claim recites a machine implemented process is not determinative of whether that process claim is statutory.” (Guidelines, Page 48)

Pursuant to the holding in *Ex Parte Lundgren* and the Interim Guidelines, the rejection of claims 1, 3-5 and 7 under §101 is improper. The §101 rejection set forth in the Office Action is the type of technological arts rejection that the BPAI categorically eliminated in *Ex Parte Lundgren*. Moreover, the PTO has explicitly instructed Examiners to no longer use the mental or human step tests and the machine-implemented test employed in the Office Action.

Applicants respectfully submit that claims 1, 3-5 and 7 satisfy the requirements of §101 because each of the claims produce a useful, concrete and tangible result.

Claim 1 does not merely recite an abstract idea divorced from any practical, real-world application, but rather a method that produces a sifting order in which variables of a binary decision diagram representation of a hardware system are to be sifted to restructure the binary decision diagram representation.

Claim 3 does not merely recite an abstract idea divorced from any practical, real-world application, but rather a method that produces a restructured binary decision diagram representative of a hardware system.

Claim 7 does not merely recite an abstract idea divorced from any practical, real-world application, but rather a method that produces sifted variables of a binary decision diagram representative of a hardware system.

In view of the foregoing, Applicant respectfully submits that claims 1, 3-5 and 7 satisfy the requirements of 35 U.S.C. §101, and requests that the rejections of these claims under §101 be withdrawn. Claims 12-17 each depend from one of claims 1, 3 or 7, and are patentable for at least the same reasons.

Serial No.: 09/159,748  
Conf. No.: 5513

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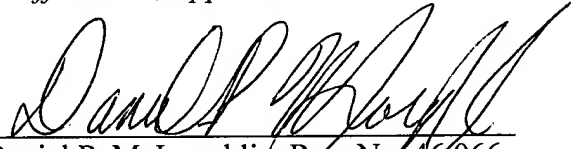
**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,  
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Docket No.: S1022.80126US00  
Date: November 9, 2005  
x11/09/05x